

A SUPPOSED INSECT LARVA FROM THE JURASSIC.

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Some time ago a very perplexing fossil, not very well preserved, was found in strata of Jurassic age in New Mexico. The horizon is basal Jurassic, and in the same rocks were many specimens of the fish *Pholidophorus americanus* Eastman. The specimen was collected by Mr. Hugo Rodeck, a member of Professor Junius Henderson's expedition. The locality is 35 miles east of Santa Rosa. I had the idea that the fossil might represent some primitive Crustacean, or ally of the Xiphosura, and having occasion to go to England, took it with me, hoping to get enlightenment at the British Museum. However, it has been carefully examined by Mr. T. H. Withers and Dr. W. T. Calman, and they cannot see any particular resemblance to any Crustacean. Mr. Withers suggests that it is the larva of an insect, and no doubt this is the best guess possible at the present time. There is, indeed, a certain resemblance to the Protoblattoid larva figured by Handlirsch.

*Xiphenax jurassicus.*

The fossil is elongate, 24 mm. long, of which about 10 mm. is a straight sword-like tail, resembling the terminal structure of a Xiphosuran. It seems certainly to be all in one piece, and to have straight margins, without any evidence of lateral bristles. The head is poorly preserved, but evidently was distinct, not concealed. In the thoracic region, behind the head, the body is narrow, and there are two appendages on each side, evidently legs. No third pair is visible. In the middle portion of the animal are three simi-

lar segments, very broadly expanded laterally into pointed projections, of the type of those seen in the larva of the beetle *Silpha*, in which, however, they extend all along the abdomen. Posterior to this middle region is a less expanded segment, very indistinctly preserved, and then comes the straight caudal appendage.

The larva of the beetle *Haliphys* also has analogous lateral processes, but there are twelve on each side.

As regards the tail, a similar structure occurs in aquatic larvae of very diverse orders, as, for instance, in *Ranatra*, *Cybister* (but it is pubescent laterally) and *Sialis* (but it is bristly at sides).

On the whole, the specimen seems probably to belong to the Coleoptera, but to some unknown and doubtless extinct group.

It may be named **Xiphenax** (new genus) **jurassicus** (new species). Type in University of Colorado Museum.

Were it regarded as a Crustacean, it might be more or less related to *Euthycarcinus kessleri* Handlirsch, from the Trias of Europe, but there seems to be no real affinity.